What is claimed is:

1. A set of synthetic oligonucleotides consisting of a 5′ and 3′ oligonucleotide for polymerase chain reaction of hepatitis B virus, wherein the 5′ oligonucleotide is a 14mer which contains a mutation leading to amino acid changes in human hepatitis B virus proteins leading to escape viral mutants, including those derived from immunoprophylaxis with vaccines and hepatitis B immune globulin and from treatment with antiviral drugs and the 3′ oligonucleotide with an appropriate size which is conserved between the mutant and wild type strains.

2. The oligonucleotides of claim 1, wherein the 5′ oligonucleotide has the sequence, 5′-TACGGACAGAAACT-3′, which corresponds to position 582 to 595 in the wild type human hepatitis B virus genome and contains the mutation G to A, leading to change at amino acid 145 of hepatitis B virus surface antigen from Glycine to Arginine, at position 8 of the said oligonucleotide.

3. The oligonucleotide of claim 1, wherein the 3′ oligonucleotide has sequence, 5′-TTAGGGTTTAAATCTATACCC-3′, which corresponds to position 842 to 822 in the wild type human hepatitis B virus genome and is complementary to the coding strand of human hepatitis B virus surface antigen.

4. A composition comprising an amount of the oligonucleotides of the claim 1, 2 or 3 suitable for polymerase chain reaction.

5. A method of determining the presence of human

hepatitis B virus surface antigen mutant 145 (Glycine to Arginine) in a sample comprising:

a) obtaining the sample;

b) treating the obtained sample for uses in a polymerase chain reaction; and

c) amplifying the treated sample with the two oligonucleotides in claim 1, 2 or 3, wherein if the sample is amplified will indicate that the sample contains human hepatitis B virus surface antigen mutant 145 (Glycine to Arginine).

6. The method of claim 5, wherein the sample is a serum sample.

7. An oligonucleotide of appropriate size, containing a mutation leading to amino acid changes in human hepatitis B virus proteins leading to escape viral mutants, including those derived from immunoprophylaxis with vaccines and hepatitis B immune globulin and from treatment with antiviral drugs, wherein the 5′ terminus of the oligonucleotide is with a fluorescent dye, 6-(fluorescein-6-carboxamido) hexanoate (6FAM); the 3′ terminus is a primary amine group; and a poly-T linker consisting of 12 T is preceding the 3′ primary amine group.

8. The oligonucleotide of claim 7, wherein the length of the oligonucleotide corresponding to the viral genome is 14 to 20 nucleotides.

9. A set of oligonucleotides useful for immobilizing on solid supports, wherein each pair of oligonucleotides consist of:

A. a first oligonucleotide having 27 nucleotides with a first fluorescent dye, at its

5'terminus and a primary amine group at its 3' terminus: 5'-(6FAM)TACGGACGGAAACTGTTTTTTTTTTT (C-7 amine)-3'; wherein the first fifteen nucleotides correspond to wild type human hepatitis B virus genome position 580 to 594, and the poly-T is a synthetic linker aiming at facilitating the subsequent hybridization reaction with target viral DNA sequences from serum samples; and

B. second oligonucleotide having 27 nucleotides with a second fluorescent dye at its 5' terminus and a primary amine group at its 3' terminus with a sequence, 5'-dye-TACGGACAGAAACTGTTTTTTTTTTTC-7 amine-3'; wherein the first fifteen mucleotides contain the mutation G to A at position 8 of the said second oligonucleotide, *in bold*, leading to change at amino acid 145 (Glycine to Arginine) of human hepatitis B virus surface antigen, and correspond to wild type human hepatitis B virus genome position 580 to 594, and wherein the poly-T is a synthetic linker aiming at facilitating the subsequent hybridization reaction with target human viral DNA sequences from serum samples.

10. The synthetic oligonucleotides of claim 9, wherein the first and the second fluorescent dye is the same.

11. The synthetic oligonucleotides of claim 10, wherein the dye is 6-(fluorescein-6-carboxamido) hexanoate (6FAM).

12. A method to screen for human hepatitis B virus surface antigen mutant 145 (Glycine to Arginine), wherein the specific oligonucleotides in claim 9

with chemical modifications: a fluorescent dye at 5' terminus and primary amine group at 3' terminus, are immobilized on solid supports.

13. A method to screen for human hepatitis B virus mutants, derived either from immunoprophylaxis with hepatitis B immune globulin and vaccines or from treatment with antiviral drugs, or from asymptomatic hepatitis B virus carriers, wherein the specific oligonucleotides in claim 9 with chemical modifications: a fluorescent dye at 5' terminus and primary amine group at 3' terminus, are immobilized on solid supports.

14. The method of claim 12 or 13, wherein the solid supports are glasses.

15. A set of oligonucleotides useful as amplifier probes in a polymerase chain reaction for human hepatitis B viral DNA, wherein the size of generated amplification product should be under 150 base pairs; wherein the generated amplification product should cover the said mutation site and in particular the G to A mutation leading to amino acid Glycine to Arginine change at position 145 of human hepatitis B virus surface antigen; wherein said oligonucleotides comprise at least two different oligonucleotides probes which are:

A. first oligonucleotide having 20 nucleotides with a biotin group at its 5' terminus, 5'-Biotin-AGGATCAACAACAACCAGTA, (SEQ ID NO. 6) position 489 to 508 as referred to the wild type human hepatitis B virus genome, wherein the presence of a biotin group allows the separation of amplified DNA fragments using streptavidin magnetic particles; and

B. second oligonucleotide having 20 nucleotides with a fluorescent dye Texas Red at its 5' terminus, and complementary to the coding strand of human hepatitis B virus surface antigen with the sequence, 5'-Texas red-ATCGTCCTGGGCTTTCGCAA-3' (SEQ ID NO:7) position 634 to 615 as referred to the wild type human hepatitis B virus genome.

16. A method to amplify target DNA of human hepatitis B virus surface antigen from serum samples, by polymerase chain reaction using the oligonucleotides in claim 15 that contain modifications: addition of biotin and Texas red groups for sense and anti-sense oligonucleotides respectively, at their 5' terminus.

17. A set of oligonucleotides useful as amplifier probes in a polymerase chain reaction for human hepatitis B viral DNA, wherein the size of generated amplification product should be under 150 base pairs; wherein the generated amplification product should cover mutations that result in amino acid changes in human hepatitis B virus proteins leading to escape viral mutants, including those derived from immunoprophylaxis with vaccines and hepatitis B immune globulin and from treatment with antiviral drugs; wherein said oligonucleotides comprise at least two different oligonucleotides probes which are:

A. a first oligonucleotide having 20 nucleotides with a biotin group at its 5' terminus, wherein the presence of a biotin group allows the separation of amplified DNA fragments using streptavidin magnetic particles; and

B. a second oligonucleotide having 20 nucleotides

with a fluorescent dye Texas Red at its 5′ terminus, and located within 150 base pairs downstream of the first oligonucleotide on human hepatitis B virus genome.

18. A method to amplify target DNA of human hepatitis B virus that may carry mutations following either immunoprophylaxis with hepatitis B immune globulin and vaccines or treatment with antiviral drugs. The said amplification is by polymerase chain reaction using the oligonucleotides in claim 17 that contain modifications: addition of biotin and Texas red groups for sense and anti-sense oligonucleotides respectively, at their 5′ terminus.